

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
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WASHINGTON, DC 20003

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference  2559-0430		Date of mailing (day/month/year) 9/6/04
<b>FOR FURTHER ACTION</b> See paragraph 2 below		
International application No.  PCT/US04/39936	International filing date (day/month/year)  01 December 2004 (01.12.2004)	Priority date (day/month/year)  01 December 2003 (01.12.2003)
International Patent Classification (IPC) or both national classification and IPC  IPC(7): B63H 25/00 and US Cl.: 114/144R		
Applicant  ROLLS-ROYCE NAVAL MARINE, INC.		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I      Basis of the opinion
- ☐ Box No. II      Priority
- ☐ Box No. III      Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV      Lack of unity of invention
- ☒ Box No. V      Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI      Certain documents cited
- ☐ Box No. VII      Certain defects in the international application
- ☐ Box No. VIII      Certain observations on the international application

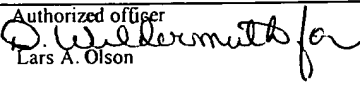
### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  Lars A. Olson Telephone No. (571) 272-6685
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Form PCT/ISA/237 (cover sheet) (January 2004)

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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US04/39936

Box No. 1 Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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WRITTEN OPINION OF THE  
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International application No.  
PCT/US04/39936

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>1-13,17,20, 21,22,25,28,31-59</u>	YES
	Claims <u>14-16,18,19,23,24,26,27,29,30</u>	NO
Inventive step (IS)	Claims <u>1-13,17,21,22,25,28,31-59</u>	YES
	Claims <u>14-16,18-20,23,24,26,27,29,30</u>	NO
Industrial applicability (IA)	Claims <u>1-59</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 14-16,18, 19, 23, 24, 26 and 27 lack novelty under PCT Article 33(2) as being anticipated by Braddon (US 3,715,571). Braddon discloses the same method for calculating a heading of a watercraft, as shown in Figure 1, and described in lines 16-67 of column 2, and lines 1-14 of column 3.

Claims 29 and 30 lack novelty under PCT Article 33(2) as being anticipated by Wesner (US 3,604,907). Wesner discloses the same method for correcting a heading of a watercraft, as shown in Figures 1a-c, and described in lines 23-35 of column 2, lines 72-75 of column 3, and lines 1-54 of column 4.

Claim 20 lacks an inventive step under PCT Article 33(3) as being obvious over Braddon in view of Buckley et al. (US 6,273,771). Braddon discloses all of the features claimed except for the use of a GPS unit as a means for acquiring a heading of a watercraft. Buckley et al. discloses a watercraft with a GPS unit, defined as Part #12, that is utilized for acquiring a heading of said watercraft. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a GPS unit as a means for acquiring a heading of a watercraft, as taught by Buckley et al., in combination with the method for controlling the heading of a watercraft as disclosed by Braddon for the purpose of providing a method for controlling a heading of a watercraft more accurately by utilizing a GPS unit to determine a position and heading of said watercraft.

Claims 1-13, 17, 21, 22, 25, 28 and 31-59 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the combination of features described in the claims.